Title: Method and Apparatus For Aligning
Operands For A Processor
Application No: 10/726,427
File No: ADAPP221
Inventor: MUKUND et al.
Page 1 of 9

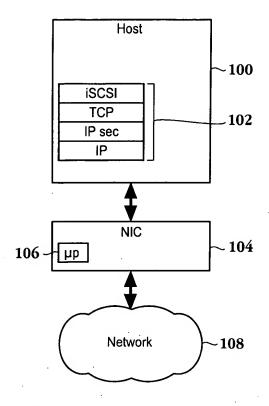| Host	
iSCSI	
TCP	
IP sec	
IP	

~100

~102

NIC ~104

106~ μp

Network ~108

Fig. 1 (prior art)

Title: Method and Apparatus For Aligning
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File No: ADAPP221
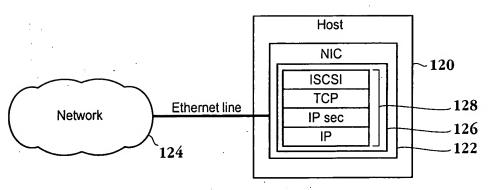Inventor: MUKUND et al.
Page 2 of 9

Fig. 2

Title: Method and Apparatus For Aligning
Operands For A Processor
Application No: 10/726,427
File No: ADAPP221
Inventor: MUKUND et al.
Page 3 of 9
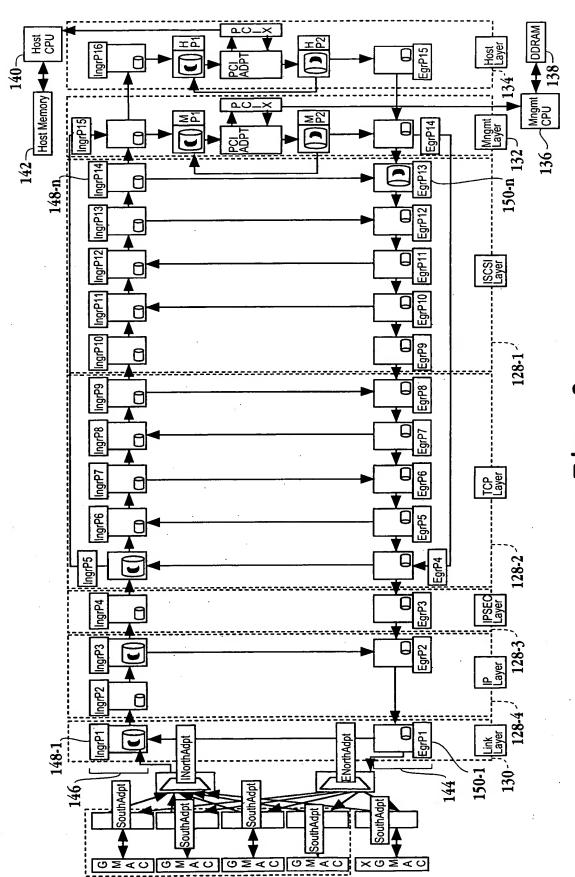
Fig. 3

Title: Method and Apparatus For Aligning
Operands For A Processor
Application No: 10/726,427
File No: ADAPP221
Inventor: MUKUND et al.
Page 4 of 9

Fig. 4

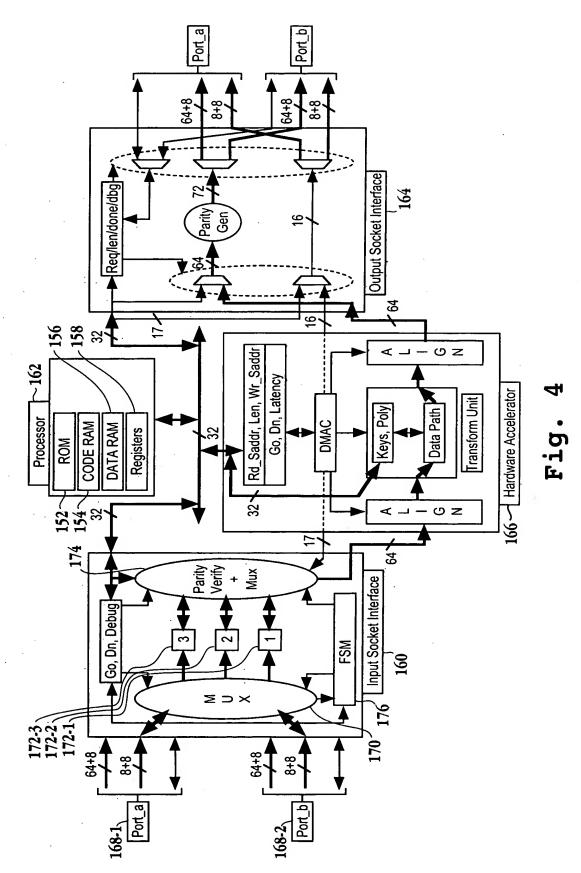Title: Method and Apparatus For Aligning
Operands For A Processor
Application No: 10/726,427
File No: ADAPP221
Inventor: MUKUND et al.
Page 5 of 9

156

180

182 — Instruction Fetch and Decode Cicuitry

DATA RAM

Execute Writeback Cicuitry — 184

iBus — 186

152 — ROM

154 — Code RAM

Input Socket

Output Socket — 164

Hardware accelerator

160   166

Fig. 5

Title: Method and Apparatus For Aligning
Operands For A Processor
Application No: 10/726,427
File No: ADAPP221
Inventor: MUKUND et al.
Page 6 of 9

Fig. 6

Title: Method and Apparatus For Aligning
Operands For A Processor
Application No: 10/726,427
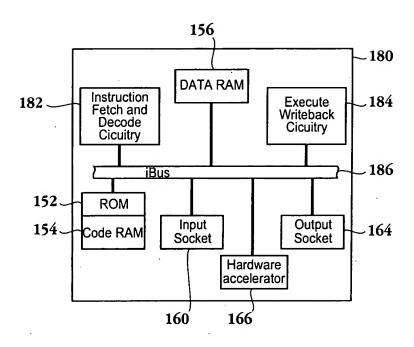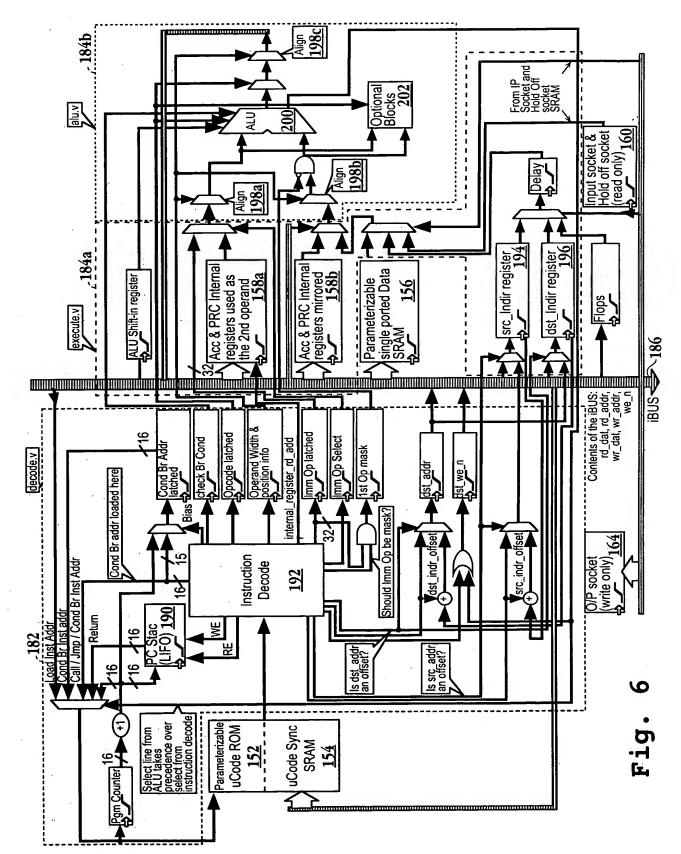File No: ADAPP221
Inventor: MUKUND et al.
Page 7 of 9

I - instruction fetch and decode
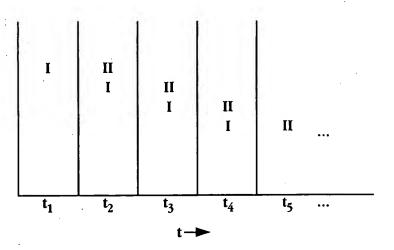II - execute and write back

Fig. 7

Title: Method and Apparatus For Aligning
Operands For A Processor
Application No: 10/726,427
File No: ADAPP221
Inventor: MUKUND et al.
Page 8 of 9

Fig. 8

Fig. 9

Title: Method and Apparatus For Aligning
Operands For A Processor
Application No: 10/726,427
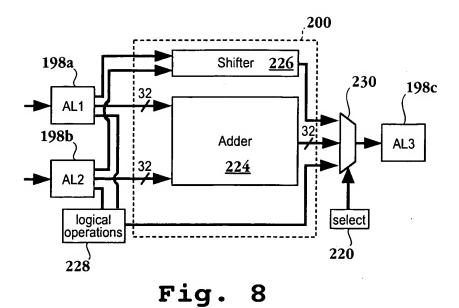File No: ADAPP221
Inventor: MUKUND et al.
Page 9 of 9

Begin

Provide a first operand having a first bit-width ——250

Determine a bit width of a second operand associated with a processor ——252

Transform the first operand by aligning a least significant bit
of the first operand to a lowest bit position of a transformed operand
having a bit size equal to the second operand ——254

Pad bits of the transformed operand ——256

Transmit the transformed operand to the processor ——258

Done

Fig. 10